

**CCHMC Orthopaedic Research Laboratory**  
**CINCINNATI CHILDREN'S HOSPITAL MEDICAL CENTER**

**SUMMER RESEARCH OPPORTUNITIES  
FOR UNDERGRADUATE WOMEN**

**APPLICATION DEADLINE: March 3, 2008**

The Orthopaedic Research Laboratory at Children's Hospital is pleased to offer the following research project for the summer of 2008. Interested students are urged to contact the faculty member(s) directing the project that most interests them. By contacting the faculty member, you can discover more about the project, learn what your responsibilities will be and if possible, develop a timetable for the twelve-week research period.

**CCHMC ORTHOPAEDIC RESEARCH LABORATORY: SUMMARY OF RESEARCH**

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**Project Description**

The purpose of the Orthopaedic Research Laboratory of Cincinnati Children's is to improve the treatment, diagnosis, and prevention of musculoskeletal disorders of childhood and adolescence. Particular emphasis is given to the most severely affected surgical patients, and to those with the most common injuries. The core competence of the laboratory is biomechanics. In addition, we collaborate with other divisions integral to surgery, such as radiology and pathology, and with medical device developers. Our main project focuses on a potential new surgical treatment for idiopathic scoliosis. Other studies include investigation of etiologic mechanisms of osteochondritis dissecans, a focal failure of bone calcification that occurs in young athletes, and development of growth plate injury criteria. Possible student projects include histomorphometry of tissue and cell structure and biomechanical testing of spines or knees.